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Utah Data Guide

Utah State Data Center

A Newsletter For Data Users

Utah Office of Planning and Budget, Demographic and Economic Analysis Section Volume 7, Number 3

State and Local Government Employment, 1986

Utah ranked 51st among all states and the District of Columbia in the number of noneducation state and local government employees per 10,000 population in 1986. State-by-state statistical information of this type is available in the report, *Public Employment in 1986*, released last March by the U.S. Bureau of the Census. This report has Utah ranked 8th and 3rd in the number of state and local government jobs for public education and higher education respectively.

Among the states there can be a substantially different mix of full-time and part-time employment. Therefore, the employment counts used in the state comparative rankings are calculated on a full-time equivalent basis. State and local governments are asked to report the number of paid full-time employees and the total hours worked for part-time employees enabling a calculation of full-time equivalent (FTE) employment. This method of determining FTE employment is new to this annual report. In prior reports a payroll based formula was used.

The FTE employment counts were collected for the payroll period which includes the 12th of October, 1986.

When examining state and local government employment in Utah a distinction is often made between education and noneducation related activities. This approach is used because of Utah's unique demographic characteristics. Utah has the largest proportion in the U.S. of its population of elementary and secondary school age, children 5 to 17. In 1987, 27 percent of Utah's population was of school age compared to the U.S. average of 19 percent. Utah also has about 19 percent more of the working age population (person 18 to 64 years of age) enrolled in public institutions of higher education than the national average. As a result, higher levels of government employment in education per 10,000 population are expected in Utah.

In contrast, education employment per student in Utah is much lower than the national average. Average class sizes in elementary and secondary schools are as large in Utah as those of any other state. With the largest relative number of school age children, Utah has 78.5 public education employees per 1,000 students (in average daily attendance) or 66 percent of the 119.2 per 1,000 found nationally.

Many government programs, in addition to education, are impacted in providing services to Utah's large number of children. These programs include health, social services, and libraries. These noneducation services have as many or more employees per 10,000 population than the average for the U.S.

Government employment per 10,000 population is often not the best comparative measure. Utah's large number of children may tend to downplay the number of government employees providing some

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services when compared to the other 49 states and the District of Columbia. Many state and local government services are more appropriately thought of as being provided to households rather than to individuals. Therefore, government employment per 1,000 households has been computed.

Table 1 provides state and local government employment by function for Utah and the U.S., showing both FTE employment per 10,000 population and per 1,000 households.

Using the employment per 1,000 households method, Utah ranks 32nd out of the 50 states and the District of Columbia in noneducation state and local government employment. Utah ranks 5th and 1st for public education and higher education respectively.

Although both comparative measures in Table 1 are useful in making comparisons, they should be used with caution. The obvious example is education as already discussed. Other examples are highways, natural resources, parks, and recreation. The FTE employment figures per 10,000 population or per 1,000 households indicate that these government programs have relatively high levels of employees in Utah.

The explanation for high levels of government employment in these areas are varied. Utah is very large geographically compared to its total population. Consequently, the demands for public services in the highway, parks, recreation and natural resource areas are great. In addition, Utah is a "tourist state" and these government programs provide services not only to residents but to the many tourists who come to visit. Also, Utah's extensive rural highway network serves not only in-state travel but also for inter-state commerce. Clearly, highways, natural resources, parks and recreation have geographic and economic influences affecting their employment levels beyond Utah's own population or household counts.

Another example is liquor store employment. Table 1 lists Utah as having 305 percent more liquor store employees per 1,000 households than does the U.S. This particular statistic is very misleading as only 17 of the 50 states have state run liquor stores. If we calculate this measure for just the 17 states to which it applies it becomes just 83 percent of the 17 state average.

Higher Education employment in Utah is much higher than the national average whether measured per 10,000 population or per 1,000 households. Part of this high level of employment can be explained by the larger proportion of Utah's adult population attending state run colleges and universities. Another explanation is that Utah ranks 3rd behind Maryland and Massachusetts in university performed research as a percent of personal income, resulting in a higher than average number of research related employment.

Is state support for higher education in Utah excessive? It does not seem to be. Utah ranks 40th out of the 50 states in state government support of higher education per pupil in 1986 at $2,966 compared to the U.S. average of $3,436.

Given that higher education employment per 1,000 households is 206 percent of the national average a more detailed explanation seems warranted. Higher education employment in Utah will be analyzed further in the next issue of the Utah Data Guide (December 1988).

Public Employment in 1986 is probably the best source of information from which to make state-to-state comparisons concerning the size of state and local government in terms of employment. Such statistical comparisons among states, however, must be undertaken with care. Each of the states have unique social, economic, geographic, and demographic characteristics that make simple comparisons difficult. By making comparisons and attempting to understand the underlying influences, important insights are identified about Utah.

Copies of *Public Employment in 1986* can be obtained for $2.50 from the Government Printing Office, GPO stock number 003-024-06775-7.

New Name for Data Resources

The Data Resources section of the Utah Office of Planning and Budget is now called the **Demographic and Economic Analysis** section. The new name was chosen because it more accurately describes the services provided by the section, namely, demographic and economic research and data dissemination. The new name should clear up past confusion with the section's title.

Table 1
Full-Time Equivalent Employment of State and Local Government By Function for Utah and the U.S. October 1986

	UTAH EMPLOYMENT	U.S. EMPLOYMENT	UTAH FTE EMPLOY PER 10,000 POPULATION	U.S. FTE EMPLOY PER 10,000 POPULATION	PER 10,000 POPULATION UTAH AS A % OF U.S.	UTAH FTE EMPLOY PER 1,000 HOUSEHOLDS	U.S. FTE EMPLOY PER 1,000 HOUSEHOLDS	PER 1,000 HOUSEHOLDS UTAH AS A % OF U.S.
ALL FUNCTIONS	80,007	11,852,532	480.5	491.6	98%	155.7	133.5	117%
TOTAL EDUCATION	47,680	5,851,671	286.4	242.7	118%	92.8	65.9	141%
HIGHER EDUCATION	16,135	1,353,256	96.9	56.1	173%	31.4	15.2	206%
INSTRUCTIONAL	4,643	466,967	27.9	19.4	144%	9.0	5.3	172%
OTHER HIGHER	11,492	886,289	69.0	36.8	188%	22.4	10.0	224%
PUBLIC EDUCATION	30,687	4,403,266	184.3	182.6	101%	59.7	49.6	120%
INSTRUCTIONAL	22,032	3,058,196	132.3	126.9	104%	42.9	34.4	124%
OTHER PUBLIC	8,655	1,345,070	52.0	55.8	93%	16.8	15.1	111%
OTHER EDUCATION	858	95,149	5.2	3.9	131%	1.7	1.1	156%
TOTAL NONEDUCATION	32,327	6,000,861	194.2	248.9	78%	62.9	67.6	93%
LIBRARIES	503	83,901	3.0	3.5	87%	1.0	0.9	104%
PUBLIC WELFARE	2,281	409,653	13.7	17.0	81%	4.4	4.6	96%
HOSPITALS	4,075	1,028,141	24.5	42.6	57%	7.9	11.6	68%
HEALTH	1,818	268,292	10.9	11.1	98%	3.5	3.0	117%
SOCIAL INSUR ADMIN	836	101,752	5.0	4.2	119%	1.6	1.1	142%
HIGHWAYS	3,320	534,073	19.9	22.2	90%	6.5	6.0	107%
AIR & WATER TRANSPORT	215	39,320	1.3	1.6	79%	0.4	0.4	94%
TOTAL POLICE	3,602	648,777	21.6	26.9	80%	7.0	7.3	96%
OFFICERS ONLY	2,607	495,458	15.7	20.6	76%	5.1	5.6	91%
FIRE PROTECTION	1,167	243,503	7.0	10.1	69%	2.3	2.7	83%
FIREFIGHTERS	1,099	225,669	6.6	9.4	71%	2.1	2.5	84%
CORRECTION	1,735	368,907	10.4	15.3	68%	3.4	4.2	81%
NATURAL RESOURCES	1,336	170,486	8.0	7.1	113%	2.6	1.9	135%
PARKS & RECREATION	1,353	201,631	8.1	8.4	97%	2.6	2.3	116%
HOUSING & URBAN RENEWAL	223	97,349	1.3	4.0	33%	0.4	1.1	40%
SEWERAGE	465	106,912	2.8	4.4	63%	0.9	1.2	75%
SANITATION NOT SEWERAGE	296	108,936	1.8	4.5	39%	0.6	1.2	47%
FINANCIAL ADMIN	2,147	295,984	12.9	12.3	105%	4.2	3.3	125%
GENERAL CONTROL(*)	2,667	446,001	16.0	18.5	87%	5.2	5.0	103%
PUBLIC UTILITIES	1,986	414,097	11.9	17.2	69%	3.9	4.7	83%
WATER	924	133,451	5.5	5.5	100%	1.8	1.5	120%
GAS & ELECTRIC	405	88,953	2.4	3.7	66%	0.8	1.0	79%
TRANSIT	657	191,693	3.9	8.0	50%	1.3	2.2	59%
LIQUOR STORES	221	12,528	1.3	0.5	255%	0.4	0.1	305%
ALL OTHER N.E.C.	2,081	420,077	12.5	17.4	72%	4.0	4.7	86%

NOTE: JULY 1, 1986 POPULATION - UTAH 1,665,000 - U.S. 241,078,000; HOUSEHOLDS - UTAH 514,000 - U.S. 88,797,000

(*) THIS CATEGORY RELATES TO THE JUDICIAL, LEGISLATIVE, & GOVERNMENT WIDE ADMINISTRATION.

SOURCE: U.S. BUREAU OF THE CENSUS, PUBLIC EMPLOYMENT IN 1986, GE-86-1 AND STATE POPULATION AND HOUSEHOLD ESTIMATES, P-25 NO. 1024

Residents Rank Neighborhoods Above Average

The Bureau of the Census and the Department of Housing and Urban Development have released the *American Housing Survey: 1984* for the Salt Lake City-Ogden Metropolitan Statistical Area (MSA), which includes Salt Lake, Davis and Weber counties. The housing survey was conducted in only 11 metropolitan areas nationwide. Approximately 4,250 housing units were surveyed in each MSA. About half of the housing units surveyed in the Salt Lake City-Ogden MSA were in Salt Lake City and the rest were in the balance of Salt Lake, Davis and Weber counties. The survey took place from August 1984 through December 1984. The survey reflects the situation of the housing unit at the time of the survey.

Salt Lake City, the remainder of Salt Lake County and Davis County were chosen as subareas for which data were gathered. The survey includes chapters on all housing units, occupied housing units, owner and renter occupied units and one on hispanic householders. Because the sample of black householders was less than 75, there is only summary data for the group. It must be remembered that this is a survey and therefore may be subject to sampling errors, particularly when dealing with small populations.

The survey reflects not only structural, social and economic characteristics, but also information about neighborhoods, reasons for moves, the choice of current residence by recent movers, and the type of previous residence.

Of all householders in the Salt Lake metro area living in neighborhoods, 85 percent ranked their neighborhood 6 or better on a scale of 1 to 10, 10 being the best. Eighty-eight percent of owners and 77 percent of renters also ranked their neighborhoods 6 or better. The elderly thought well of their neighborhoods with 89 percent ranking them a 6 or higher. Hispanics ranked their neighborhoods similarly to the total; 84 percent gave a ranking of 6 or better. In contrast, blacks were disaffected with their neighborhoods with only 71 percent ranking their neighborhoods above a 5. But, Salt Lake City residents were by far the most disaffected group with their neighborhoods. Only 54 percent ranked their neighborhoods 6 or higher.

The elderly were the most likely to not see any problems in their neighborhoods, showing 64 percent of the householders who thought there were no problems. But less than half the householders in Salt Lake City thought their neighborhood had no problems. As a whole, 55 percent of the householders in the MSA thought there were no problems in their neighborhoods. When householders did feel there were problems, the most common problems cited were other people, followed by "other" unspecified problems, then noise, traffic, litter, housing deterioration, and finally, crime.

Within the year previous to the survey, 76,500 households had moved . Owners accounted for 19,600 of the moves and renters 56,900 of the moves. The most common reason for moving within the previous year was a new job or a transfer. The second most commonly specified reason for moving was needing a larger house or apartment. The housing unit was most often cited as the most important reason for choosing the current neighborhood, followed by the convenience to work. Thirty-seven percent of the movers felt they moved into better neighborhoods and 36 percent felt the new neighborhood was about the same as the previous neighborhood. Twenty-two percent believed their neighborhood was worse than their previous one.

The most important consideration in the choice of the current residence was financial. The next important considerations were room layout and design, followed by size.

Table 2 shows other commonly asked for statistics, including median family and household incomes, median age of householder and persons per household.

More information about the survey can be obtained by contacting the Demographic and Economic Analysis Section of the Utah Office of Planning and Budget at (801) 538-1036.

Table 2
American Housing Survey, 1984
Salt Lake City-Ogden Metro Area
Occupied Housing Units
(in thousands)

	Total	Owner Occupied	Renter Occupied	Black	Hispanic	Elderly	Salt Lake City	Salt Lake Co. (exclude SLCity)	Davis Co.
Total Units	333.8	224.0	109.8	3.5	14.1	52.3	71.2	160.7	48.2
Owner	224.0	224.0	NA	1.2	6.3	42.6	37.1	112.7	35.8
% total	67.1%	100.0%	NA	35.4%	44.4%	81.5%	52.0%	70.1%	74.3%
Renter	109.8	NA	109.8	2.2	7.9	9.7	34.2	48.0	12.4
White	319.7	218.2	101.5	...	11.1	51.2	65.7	155.8	46.6
Black	3.5	1.2	2.2	3.5	0.1	0.7	1.5	0.7	0.2
Hispanic	14.1	6.3	7.9	0.1	14.1	1.7	5.0	5.1	1.3
Other	10.6	4.5	6.1	...	2.9	0.5	4.0	4.3	1.3
Davis Co.	48.2	35.8	12.4	0.2	1.3	5.7	NA	NA	NA
Salt Lake Co.	231.9	149.8	82.2	2.2	10.1	36.1	NA	NA	NA
Weber Co.	53.7	38.4	15.3	1.1	2.8	10.5	NA	NA	NA
Median Year Structure Built	1965	1964	1965	1961	1963	1953	1946	1971	1967
Median # Rooms	5.8	6.7	4.2	4.5	5.1	5.4	4.9	5.8	7.0
Median Sq. Feet	1995	2059	1453	...	1698	1730	1808	2049	2153
Median Sq.Ft/Person	619.0	640.0	468.0	...	488.0	941.0	738.0	596.0	575.0
Median Persons/Household	2.7	3.0	2.2	2.0	2.8	1.6	2.0	3.0	3.3
Median Age of HHlder	41	47	30	39	38	74	44	40	43
Median Yrs School Completed	13.2	13.7	12.9	12.5	12.5	12.5	13.6	13.1	13.5
Median Hhold income	$24,458	$28,733	$16,590	$12,633	$17,136	$13,801	$19,117	$26,715	$27,917
Median Family Income	$23,964	$28,523	$15,447	$12,059	$16,645	$13,778	$17,931	$26,285	$27,601
Med. Monthly Housing Costs	$374	$398	$358	$322	$369	$212	$308	$422	$395
Moved Previous Year	76.5	19.6	56.9	1.1	4.6	2.7	19.6	36.6	9.4
Neighborhood Rank 6+	85.0%	88.0%	76.8%	70.5%	83.6%	89.3%	53.5%	85.6%	89.1%

NA = Not applicable
... = Suppressed

Source: Current Housing Reports, Housing Characteristics for Selected Metropolian Areas, American Housing Survey: 1984

1987 Economic and Demographic Profiles Updated

The *Utah Economic and Demographic Profiles* contain much of the most widely used and the most frequently requested economic and demographic information on the state of Utah. The users of this report are able to assess the current economic conditions in the state, multi-county districts and counties. Because the Profiles provide data for the years 1960, 1965 and 1970 through 1987, users are also able to follow the economic trends that have been occurring in the state.

The report includes information on the population, labor force, employment, unemployment and total non-agricultural employment by major sector, as well as personal income, per capita income, total assessed valuations, gross taxable retail sales, births and deaths.

The Profiles include the April 1988 release of personal income data on a county level by the U.S. Bureau of Economic Analysis (BEA). BEA revised these figures back to 1969.

The report is available in hard copy for $4.00 or in machine readable format for $4.00 plus the cost of the disks. For more information on the Profiles, please contact the Demographic and Economic Analysis section, Utah Office of Planning and Budget, (801) 538-1036.

Utah Migration Movement from North to South

Migration in and out of Utah follows the national trend of a movement from North to South. According to a report recently released by the Utah Office of Planning and Budget's, Demographic and Economic Analysis section, Utah received a net gain of population from 28 states and lost population to 22 states and the District of Columbia over the 1981 to 1985 period. Nearly all of the states Utah gained population from were north of Utah (the noted exceptions were Washington and four New England states) and nearly all of the states Utah lost population to were south of Utah.

The data base, compiled for Utah for the first time, comes from the U.S. Internal Revenue Service's (IRS) Individual Master Files. By matching places of residence on IRS tax returns from year to year, the data base provides a good indication of state to state and county to county migration movements. Because of the lengthy process used to compile the data, the data are currently available for the years 1981 to 1985 only.

Net In-Migration

Despite the fact that Utah gained population from 28 states over the 1981 to 1985 time period, over 52 percent of this increase came from just four states: Idaho, Illinois, Michigan and Montana. Utah gained 10,000 people from these four states collectively from 1981 to 1985.

Utah gained the most population from Idaho, recording nearly 6,000 more people moving to Utah from Idaho than vice versa. These migration data illustrate the strong connection between Utah and Idaho. Analysts speculate that the major reasons Idahoans move to Utah are the attraction of a large metro area, the opportunities for higher education (mainly Utah State University and Brigham Young University), a more desirable climate and similar socio-cultural values.

In other northern states, the reasons for moving to Utah are varied. Nationally, the movement from the frostbelt to the sunbelt has been sourced to such factors as better economic opportunities, an aging population who desire a warmer climate and who receive income from sources which are not tied to a place of work, life-styles that are more oriented to recreation and year-round outdoor opportunities and generally lower living and amenity costs.

The Midwest region likely lost population to Utah because of the downturn in the agricultural and manufacturing sectors. In the case of the three states north of Utah (Idaho, Montana and Wyoming), the declines in the agricultural and mining industries may have forced some workers to move to urban locations such as the Salt Lake City-Ogden metropolitan area to find work.

Table 3 lists net migration into and out of Utah by state. Figure 1 provides a map of these data.

Net Out-Migration

Utah lost population over the 1981 to 1985 period primarily to states in the West and South regions. Interestingly, 62 percent of all of the net out-migration from Utah during the 1981 to 1985 period went to three states: Arizona, Texas and Colorado. Both Arizona and Texas gained nearly 5,000 people each from Utah. Utah lost somewhat less (around 1,000) to Colorado.

Certainly, it is difficult to determine precise reasons why Utah lost population to these states from 1981 to 1985. Arizona, perhaps, stands out with the most obvious reasons -- a strong, growing economy with many employment opportunities, favorable climate, and close proximity to Utah. Texas, from 1981 to 1983, benefited economically from oil prices over $28 a barrel and had a population growth rate from 1981 to 1985 nearly 3 percentage points higher than Utah's. Consequently, many Utahns may have found employment opportunities in Texas. Utah's out-migration to Colorado measured one-fifth of the out-migration to Texas and Arizona. Since Colorado's economy performed comparable to Utah's over this time span the attraction of Colorado to Utah residents is not as evident.

County to County Migration

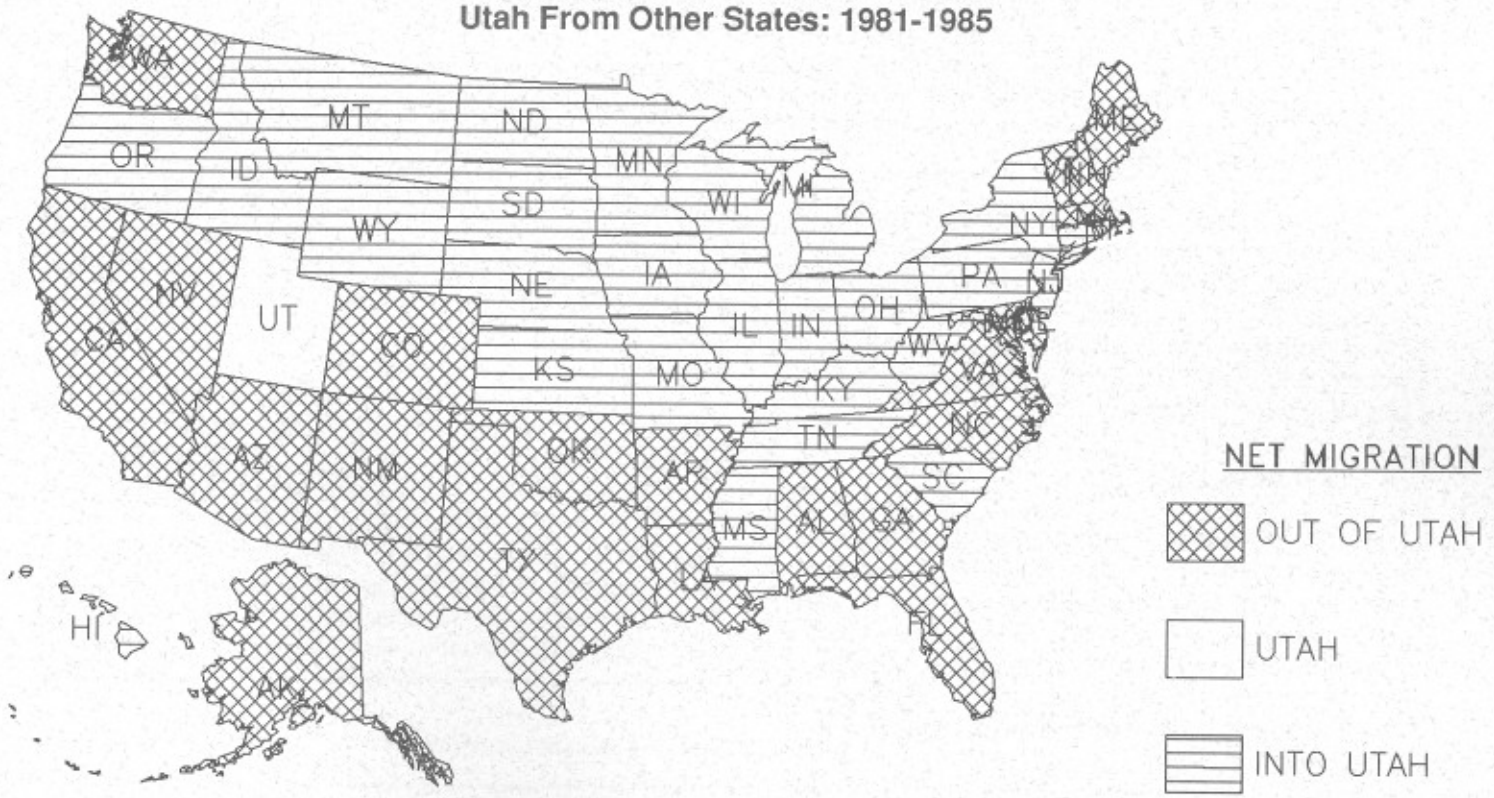
Utah's urban counties (defined here as Davis, Salt Lake, Weber and Utah) experienced net in-migration from the rural counties during 1984 and 1985. This movement occurred presumably because of better economic conditions within the urban counties. Researchers reason that when the rural counties experience poor economic times, people move to the urban counties to find work. Conversely, in comparatively good economic times for the rural counties, the urban counties may lose population to the rural areas.

Table 3
Net Migration Into and Out of Utah, 1981-85

	1981	1982	1983	1984	1985	Total 81-85
Alabama	62	39	-136	-101	-20	-156
Alaska	-114	-301	-225	-168	-72	-880
Arizona	27	-111	-698	-1792	-2403	-4977
Arkansas	38	90	-132	-33	-25	-62
California	3462	2474	-860	-1774	-4277	-975
Colorado	-370	-392	233	-433	-262	-1224
Connecticut	55	49	-12	-14	-40	38
Delaware	12	10	12	-3	22	53
D.C.	-25	2	-22	-33	-33	-111
Florida	290	-24	56	-336	-366	-380
Georgia	69	89	-80	-135	-146	-203
Hawaii	168	129	255	173	27	752
Idaho	974	1117	968	1262	1620	5941
Illinois	449	466	365	103	77	1460
Indiana	92	351	176	14	-40	593
Iowa	117	182	136	157	196	788
Kansas	144	95	-33	145	9	360
Kentucky	106	45	-136	116	-1	130
Louisiana	-44	-103	46	22	18	-61
Maine	18	1	-26	14	-27	-20
Maryland	49	84	-319	46	-168	-308
Massachusetts	31	96	-80	-63	-160	-176
Michigan	528	472	252	91	0	1343
Minnesota	145	144	282	100	-48	623
Mississippi	61	6	79	-1	-18	127
Missouri	118	183	-73	9	-110	127
Montana	157	341	197	359	236	1290
Nebraska	95	242	-15	71	32	425
Nevada	-235	-70	221	-254	-423	-761
New Hampshire	-7	30	46	-44	-27	-2
New Jersey	215	115	224	-2	-88	464
New Mexico	301	-107	-197	-373	-244	-620
New York	215	187	445	-74	-106	667
North Carolina	109	89	-72	-94	-74	-42
North Dakota	65	10	117	-19	71	244
Ohio	314	409	75	14	-88	724
Oklahoma	-103	-441	-194	-106	16	-828
Oregon	6	743	204	-352	-162	439
Pennsylvania	211	327	62	91	50	741
Rhode Island	-6	-7	-3	16	10	10
South Carolina	145	-5	-82	-34	-14	10
South Dakota	20	172	21	-19	19	213
Tennessee	124	56	3	3	-78	108
Texas	-575	-954	-1099	-1129	-934	-4691
Utah	0	0	0	0	0	0
Vermont	-2	-18	-12	-1	0	-33
Virginia	-37	-62	-37	-260	-239	-635
Washington	-164	292	270	-225	-550	-377
West Virginia	83	47	11	62	-1	202
Wisconsin	117	142	131	118	99	607
Wyoming	-555	-126	575	502	350	746
TOTAL	6955	6605	919	-4384	-8392	1703

Source: U.S. Internal Revenue Service, Individual Master Files

Net Migration Flows Into and Out Of Utah From Other States: 1981-1985



From 1981 to 1983, the outlook for mining, manufacturing and agriculture was considerably brighter than 1984 and 1985. The IRS migration data show a net in-migration from the urban counties to the rural counties during these years.

The Uintah Basin multi-county district is a good example of the rural to urban flow. Net migration into the Uintah Basin reflects the economic conditions and specifically the availability of jobs in the area. Not surprisingly, the Uintah Basin experienced net in-migration from 1981 to 1983. The majority of this in-migration came from other states and was very likely in response to the availability of oil and gas employment opportunities.

In 1984 and continuing in 1985, however, after oil prices dropped below $28 a barrel, the Uintah Basin registered net out-migration. These data illustrate how important economic conditions are in attracting and in losing population.

Despite the overall movement of persons to the urban counties in 1984 and 1985, Washington County, a rural county and the county where St. George is located, stands out as a major recipient of in-migration in every year from 1981 to 1985. Moreover, this migration has shown phenomenal increases. According to the IRS data, Washington County gained approximately 500 persons because of in-migration in 1981. By 1985, this increase had quadrupled to nearly 2,000, a 300 percent increase.

Washington County's popularity has been sourced to many factors. The warm climate has likely enticed many of the nation's and Utah's aging population to move into the county. In addition, the year-round recreation opportunities, a growing tourism industry and Dixie College may also be important factors in the in-migration.

Limitations of the Data

Migration is the most difficult component of population change to measure. Unlike births and deaths, no records exist which show precisely when people change residences across state lines. Consequently, migration data are subject to inaccuracies. In addition, different migration data bases, while showing the same trends, may not show the same magnitude of migration.

The IRS migration data base is unique because it provides an indication of out- and in-migrants separately (not just a net figure) on a county level. Because of this ability, the IRS migration data provides the best indication available of the origins of those who move into Utah and the destinations of those who move out of Utah as well as migration within Utah.

The major limitations of the IRS data are, 1) the data are not inclusive of the entire population, 2) the exemptions on the tax forms do not always reflect the place of residence of the person(s), 3) addresses on tax returns may not match the filers actual place of residence, and 4) out-of-state college students can cause distortions in college counties. For these reasons, the IRS migration data should be viewed as an indication of migration movements, but not as an accurate representation of the exact movement of the total population.

The report, *Migration in Utah*, provides in more detail, the history of migration in Utah, a description of the IRS data base limitations and a record of Utah migration data. To receive a copy of the migration report or to receive additional information about the migration data, contact the Demographic and Economic Analysis section at (801) 538-1036.

Local Area Personal Income

The Bureau of Economic Analysis (BEA) just released local area personal income estimates by major source for counties and metropolitan areas. These data include the 1985 and 1986 estimates as well as extensively revised figures from 1981 through 1984.

The U.S. summary and Rocky Mountain Region volumes can be obtained through the U.S. Government Printing Office (GPO). The GPO stock number for Volume 1 (U.S. Summary) is 003-010-00182-8 and it sells for $13.00. The stock number for Volume 5 (Rocky Mountain Region) is 003-010-00186-1 and sells for $14.00. The address is Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Orders must be prepaid.

1987 Populations for Metro Areas Released

The Bureau of the Census just released the 1987 population estimates for the 282 metropolitan areas in the country. These estimates show that more than three of every four people live in the country's 282 metropolitan areas. Furthermore, the nation has 37 metropolitan areas with at least one million population. The Salt Lake-Ogden metropolitan area ranks 37th in size and is the smallest metro area with over one million population.

New York is the nation's largest metro area and has a population estimate over 18 million people. The New York metro area includes the greater New York City area of Northern New Jersey, Long Island and Stamford, Danbury and Norwalk Connecticut. Since 1980, the New York metro area has added over a half million people.

Of the 10 largest areas, two are in Texas (Dallas and Houston) and two are in California (Los Angeles and San Francisco). Detroit is the only metropolitan area of the 10 largest that lost population from 1980 to 1987. Between 1986 and 1987, Houston fell from the 9th to the 10th largest and was replaced in 9th place by Washington, D.C.

Phoenix maintains its position as the fastest growing metro area over one million population. The Salt Lake City-Ogden metro area fell from the 10th fastest growing to the 11th. San Diego jumped two spots (over San Antonio and Tampa) to be the fourth fastest growing metro area over one million population in the country.

Table 4 shows the 1987 population estimates and the percent change from 1980 to 1987 for all metro areas in the U.S. with over one million population. The Provo-Orem metro area is not shown because of its size. The Bureau of the Census estimates the Provo-Orem 1987 metro area population at 241,800. This population makes Provo-Orem the 134th largest of the 282 metro areas in the country.

The Salt Lake-Ogden metro area includes Davis, Salt Lake and Weber Counties. The Provo-Orem metro area includes Utah County.

Table 4
1987 Populations of Metro Areas of One Million or More

	1987 Population	% Ch. 80-87	% Ch. Rank		1987 Population	% Ch. 80-87	% Ch. Rank
New York	18,053,800	2.9	31	San Diego	2,285,900	22.8	4
Los Angeles	13,470,900	17.2	8	Tampa	1,965,100	21.8	6
Chicago	8,146,900	2.6	32	Phoenix	1,959,600	29.8	1
San Francisco	5,953,100	10.9	17	Denver	1,861,300	15.0	12
Philadelphia	5,890,600	3.7	26	Cincinnati	1,714,600	3.3	28
Detroit	4,629,400	-2.6	35	Milwaukee	1,562,100	-0.5	33
Boston	4,092,900	3.0	30	Kansas City	1,546,400	7.9	19
Dallas	3,724,900	27.1	2	Portland	1,383,400	6.6	20
Washington, D.C.	3,646,000	12.2	14	Norfolk	1,346,100	16.0	10
Houston	3,626,300	17.0	9	Sacramento	1,336,500	21.5	7
Miami	2,954,100	11.7	16	New Orleans	1,321,000	5.1	23
Cleveland	2,766,900	-2.4	34	Columbus	1,320,100	6.1	21
Atlanta	2,656,800	24.3	3	San Antonio	1,306,700	21.9	5
St. Louis	2,458,100	3.4	27	Indianapolis	1,228,600	5.3	22
Seattle	2,340,600	11.8	15	Buffalo	1,174,500	-5.5	37
Minneapolis	2,335,600	9.3	18	Providence	1,117,700	3.2	29
Baltimore	2,302,900	4.7	24	Charlotte	1,091,000	12.3	13
Pittsburgh	2,296,400	-5.2	36	Hartford	1,057,500	4.3	25
				Salt Lake City	1,054,500	15.9	11

Source: U.S. Bureau of the Census, Press Release, September 30, 1988

Utah's Total Fertility Rate Examined

Utah's demographic uniqueness is well documented. Utahns tend to be more educated, live longer, and are more highly concentrated in urban areas than their national counterparts. Given the many demographic realities in Utah, however, none is more unequaled than Utah's total fertility rate (defined below). Utahns have more children per women of childbearing age than any other state in the country. A recent report published by the Utah Office of Planning and Budget titled, *Issues of Fertility in Utah*, provides a discussion of different measures of fertility and identifies possible causes for the declining total fertility rate in Utah over the past decade.

According to the report, Utah's fertility rate has fallen every year since 1979, declining from 3.3 births per woman to an estimated 2.6 births per woman in 1986. Because of the dramatic decline, demographic researchers, community leaders and the public at large have speculated about the reasons for, or determinants of, the drop. The total fertility rates for Utah and the U.S. are shown in Table 5. The report provides additional definitions and data for alternative measures of fertility.

No single determinant can explain the decline in Utah's total fertility rate. Instead, a combination of factors which are intrinsically linked, provide, in part, a likely explanation for the decline. Among the most important factors are, educational attainment, delayed first births, increased effectiveness and availability of birth control, and higher labor force participation with the accompanying higher incomes.

Because of the important public policy decisions which are based on population, fertility trends in Utah must be monitored carefully. The potential impacts of changing fertility rates for Utah are significant. For example, school enrollment projections are based, to a large extent, on the number of births in previous years. If there is a significant change in fertility trends, and this change is not incorporated into school-age projections, serious errors of either under- or over-building of facilities could take place. It is important, therefore, to examine Utah's fertility rate every year to keep abreast of continuing or changing trends.

To obtain a copy of *Issues of Fertility in Utah*, contact the Demographic and Economic Analysis section of the Utah Office of Planning and Budget at (801) 538-1036.

The total fertility rate shows how many births 1,000 women would have during their entire childbearing period (defined to be ages 15 to 44), if, during their entire reproductive life they were to experience the age-specific birth rates that occurred for that given year. Often, the total fertility rate is measured on a per woman basis by dividing the above rate by 1,000, achieving, in effect, the number of children one woman will have during her entire childbearing years. The total fertility rate is the most complete measure of fertility because it includes the age-specific birth rates of the population for a given year.

Table 5
Utah and U.S. Fertility Rate

	Utah	U.S.		Utah	U.S.
1960	4.3	3.7	1974	2.9	1.8
1961	4.2	3.6	1975	3.0	1.8
1962	4.2	3.5	1976	3.2	1.7
1963	3.9	3.3	1977	3.3	1.8
1964	3.6	3.2	1978	3.3	1.8
1965	3.2	2.9	1979	3.3	1.8
1966	3.2	2.7	1980	3.2	1.8
1967	3.1	2.6	1981	3.1	1.8
1968	3.0	2.5	1982	3.0	1.8
1969	3.1	2.5	1983	2.8	1.8
1970	3.3	2.5	1984	2.7	1.8
1971	3.1	2.3	1985	2.7	1.8
1972	2.9	2.0	1986	2.6	1.8
1973	2.8	1.9			

Sources: Eileen Brown, "Fertility in Utah: 1960-1985" and Utah Office of Planning and Budget

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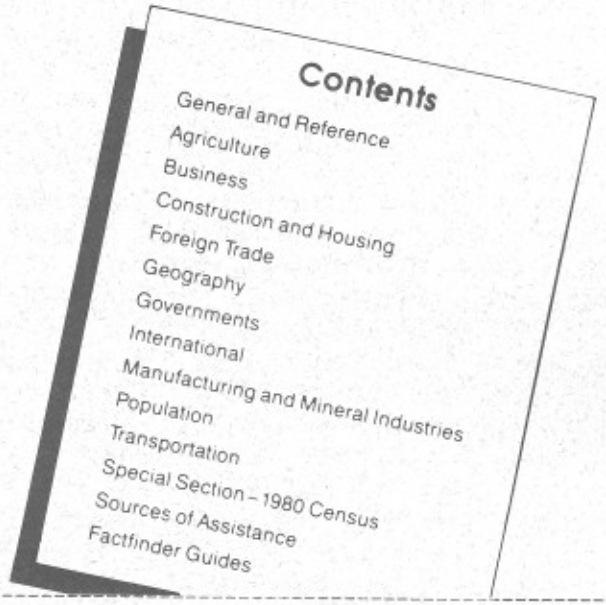

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The Demographic and Economic Analysis section of the Utah Office of Planning and Budget is the Bureau of the Census State Data Center for Utah. As a Data Center, the section assists data users in the public and private sectors in accessing and using the broad range of statistical data available from the Bureau of the Census, other federal government agencies as well as state and local governments in Utah. Nineteen affiliates (listed below) help in the data dissemination process.

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Marriott Library, University of Utah	Julie Hinz	581-8394
Harold B. Lee Library, Brigham Young University	Beverly Norton	378-4090
Merrill Library, Utah State University	Karlo Mustonen	750-2683
Stewart Library, Weber State College	Reference Dept.	626-6415
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